Access DB# 112925

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: [redacted] Thien Phan Examiner #: 79425 Date: 1/28/04
Art Unit: 2739 Phone Number 305-0707 Serial Number: 10/045,036
Mail Box and Bldg/Room Location: CP2 5031 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

_____

Earliest Priority Filing Date: _____

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Claim 1
nanomaterial
process is found in prior art, not with nano materials
(particles, etc.)

1. NPL
2. Case law

****

STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
Searcher: John Sims	NA Sequence (#)		STN	
Searcher Phone #: 308-4876	AA Sequence (#)		Dialog	✓
Searcher Location: EIC 3700	Structure (#)		Questel/Orbit	
Date Searcher Picked Up:	Bibliographic		Dr.Link	
Date Completed: 1/30	Litigation		Lexis/Nexis	
Searcher Prep & Review Time:	Fulltext		Sequence Systems	
Clerical Prep Time:	Patent Family		WWW/Internet	
Online Time:	Other		Other (specify)	West Law

PTO-1590 (8-01)

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? ds

Set     Items   Description
S1      59026   NANOPARTICL? OR NANO()PARTICLE? ?
S2    1401784   SUBSTRAT? OR WAFER? ? OR UNDERLAY?
S3      74400   WIRING?
S4      10770   PHOTOMASK? OR PHOTO()MASK?
S5         54   SHADE()PATTERN?
S6          0   S3 AND S5
S7        153   S3 AND S4
S8          0   S1 AND S2 AND S7
S9       6133   S1 AND S2
S10        15   S9 AND S3
S11        11   RD (unique items)
S12     15046   BLACK(3N)(PIGMENT? OR COLOR? OR COLOUR?)
S13         8   S1(S)S12
S14         0   S3 AND S13
S15         8   S13 NOT S10
S16         4   RD (unique items)
S17        15   S11 OR S16
S18       725   (SHADE OR SHADING)(2N)(MATERIAL? OR PATTERN?)
S19         0   S1 AND S18 AND S12
S20        15   S2 AND S18
S21         0   S20 AND S3
S22         8   S4 AND S12
S23         0   S1 AND S22
S24         3   S2 AND S22
S25        23   S20 OR S22
S26        18   RD (unique items)
S27        18   S26 NOT S10
S28         0   S1 AND S18
S29         2   S4 AND S18
S30         2   RD (unique items)
? show files
File   2:INSPEC 1969-2004/Jan W3
         (c) 2004 Institution of Electrical Engineers
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         (c) 2004 NTIS, Intl Cpyrght All Rights Res
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         (c) 2004 ProQuest Info&Learning
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         (c) 1999 Information Handling Services
File  94:JICST-EPlus 1985-2004/Jan W3
         (c)2004 Japan Science and Tech Corp(JST)
File  95:TEME-Technology & Management 1989-2004/Jan W2
         (c) 2004 FIZ TECHNIK
File  99:Wilson Appl. Sci & Tech Abs 1983-2004/Dec
         (c) 2004 The HW Wilson Co.
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         (c) 2004 Contains copyrighted material
File 144:Pascal 1973-2004/Jan W3
         (c) 2004 INIST/CNRS
File 202:Info. Sci. & Tech. Abs. 1966-2004/Jan 20
         (c) 2004 EBSCO Publishing
File 233:Internet & Personal Comp. Abs. 1981-2003/Sep
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John Sims EIC 3700 308-4836

(c) 2003 EBSCO Pub.
File 239:Mathsci 1940-2003/Feb
(c) 2003 American Mathematical Society
File 275:Gale Group Computer DB(TM) 1983-2004/Jan 30
(c) 2004 The Gale Group
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
(c) 1998 Inst for Sci Info
File 647:CMP Computer Fulltext 1988-2004/Jan W3
(c) 2004 CMP Media, LLC
File 674:Computer News Fulltext 1989-2004/Jan W4
(c) 2004 IDG Communications
File 696:DIALOG Telecom. Newsletters 1995-2004/Jan 15
(c) 2004 The Dialog Corp.
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John Sims EIC 3700 308-4836

STIC Search Report
EIC 3700

STIC Database Tracking Number: 112925

TO: Thiem D Phan
Location: CP2 5D31
Art Unit: 3729
Friday, January 30, 2004

Case Serial Number: 10/045036

From: John Sims
Location: EIC 3700
CP2, 2C08
Phone: 308-4836

john.sims@uspto.gov

Search Notes

Tim:
A search of Federal cases as well as USPTO decisions did not produce any relevant case law results.
The non-patent literature results are attached. Please examine carefully.

16/7/4 (Item 1 from file: 95)
DIALOG(R)File 95:TEME-Technology & Management

01661872 20020700816
Nanotechnologie: la prochaine 'revolution' dans l'industrie textile?
(Nanotechnologie: Die naechste 'Revolution' in der Textilindustrie?)
(Nanotechnology: the next 'revolution' in textiles?)
Smith, WC
TUT Textiles a Usages Techniques, v54, n44, pp16-19, 2002
Document type: journal article Language: Not Available
Record type: Abstract
ISSN: 1161-9317

ABSTRACT:
Nano-technologies are in fashion. They promise intelligent textiles with yet unsuspected functionalities, or revolutionary process for dyeing and finishing textiles. In the textile industry several nano-technology textile products are now commercial utilising the technology of companies like Nano-Tex LLC. Their process prevent staining of cotton fabrics, repel water, promote better moisture management in garments and improve the touch of synthetic fabrics by adding a cotton-like feel to synthetic fabrics. The Natick Army soldier Center has been working on nano-technology items for some time. One, in the form of electrospinning technology, can utilise most any polymer to create nano-size fibres in the range of 150 nanometers, though some report fibres in the 22 - 150 nanometer scale. Using this technology, a new fibre, designated M-5, has been created, which is infinitely stronger than steel with much lighter weight. Such fibres can be used for applications such as super light weight composites for aerospace, or improved ballistic protection. Electrospinning is also the basis for some Donaldson's filtration media. Their patented EON-Nanofibres are in the 250 nanometer range. University of California-Davis has applied for a patent to use nanotech to improve dyeing techniques. Typically, dyes must be dissolved in water twice for a blend of polyester and cotton. The new process uses carbon **black pigment** made of **nanoparticles** to transfer colour to the fabric in one step, saving energy and wastewater. Japanese scientists have already developed a lead in nanoscale circuits and have lead in nanoelectronics. The EU has the lead in nanomaterials, including such areas as cosmetics and textiles. (bilingual document: French/English)
?

17/3/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

7704830 INSPEC Abstract Number: A2003-18-6146-010, B2003-09-4360B-029
Title: Characteristics of electric devices made by direct nanoparticle **spraying**
Author(s): Ozawa, E.; Kawakami, Y.; Yoshida, T.; Iwashina, M.; Takahashi, K.
Author Affiliation: Vacuum Metall. Co. Ltd., Chiba, Japan
Journal: Proceedings of the SPIE - The International Society for Optical Engineering Conference Title: Proc. SPIE - Int. Soc. Opt. Eng. (USA) vol.4830 p.232-7
Publisher: SPIE-Int. Soc. Opt. Eng,
Publication Date: 2003 Country of Publication: USA
CODEN: PSISDG ISSN: 0277-786X
SICI: 0277-786X(2003)4830L.232:CEDM;1-2
Material Identity Number: C574-2003-037
U.S. Copyright Clearance Center Code: 0277-786X/03/$15.00
Conference Title: Third International Symposium on Laser Precision Microfabrication
Conference Sponsor: SPIE; Commemorative Assoc. Japan World Exposition; U.S. Air Force Office of Sci. Res.; et al
Conference Date: 27-31 May 2002 Conference Location: Osaka, Japan
Language: English
Subfile: A B
Copyright 2003, IEE

17/3/2 (Item 2 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

7621851 INSPEC Abstract Number: A2003-12-8120V-066, B2003-06-0587-020
Title: Interconnection of nanostructures using carbon nanotubes
Author(s): Homma, Y.; Yamashita, T.; Kobayashi, Y.; Ogino, T.
Author Affiliation: Nippon Telegraph & Telephone Corp., NTT Basic Res. Labs., Kanagawa, Japan
Journal: Physica B Conference Title: Physica B (Netherlands) vol.323, no.1-4 p.122-3
Publisher: Elsevier,
Publication Date: Oct. 2002 Country of Publication: Netherlands
CODEN: PHYBE3 ISSN: 0921-4526
SICI: 0921-4526(200210)323:1/4L.122:INUC;1-H
Material Identity Number: M742-2002-018
U.S. Copyright Clearance Center Code: 0921-4526/02/$22.00
Conference Title: Tsukuba Symposium on Carbon Nanotube in Commemoration of the 10th Anniversary of its Discovery
Conference Date: 3-5 Oct. 2001 Conference Location: Tsukuba, Japan
Language: English
Subfile: A B
Copyright 2003, IEE

17/3/3 (Item 3 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

7589774 INSPEC Abstract Number: A2003-10-7960-027
Title: Polypyrrole latex: surface analysis by XPS
Author(s): Tarcha, P.J.; Salvati, L.; Johnson, R.W.

Author Affiliation: Abbott Labs., North Chicago, IL, USA
Journal: Surface Science Spectra vol.8, no.4 p.312-16
Publisher: AIP for American Vacuum Soc,
Publication Date: Oct. 2001 Country of Publication: USA
CODEN: SSSPEN ISSN: 1055-5269
SICI: 1055-5269(200110)8:4L.312:PLSA;1-T
Material Identity Number: O913-2003-001
U.S. Copyright Clearance Center Code: 1055-5269/2001/8(4)/312/5/$18.00
Language: English
Subfile: A

17/3/4 (Item 4 from file: 2)
DIALOG(R)File 2:INSPEC

7562537 INSPEC Abstract Number: A2003-08-8715B-044, B2003-04-2230B-010
Title: Supramolecular architecture and molecular electronics. Four years later
Author(s): Nicolini, C.
Author Affiliation: DISTBIMO, Genoa Univ., Italy
Conference Title: Proceedings of the IEEE-EMBS Special Topic Conference on Molecular, Cellular and Tissue Engineering (Cat. No.02EX596) p.32
Publisher: IEEE, Piscataway, NJ, USA
Publication Date: 2002 Country of Publication: USA 211 pp.
ISBN: 0 7803 7557 2 Material Identity Number: XX-2002-04040
U.S. Copyright Clearance Center Code: 0-7803-7557-2/02/$17.00
Conference Title: Proceedings of the IEEE-EMBS Special Topic Conference on Molecular, Cellular and Tissue Engineering
Conference Date: 6-9 June 2002 Conference Location: Genoa, Italy
Language: English
Subfile: A B

17/3/5 (Item 5 from file: 2)
DIALOG(R)File 2:INSPEC

7278375 INSPEC Abstract Number: B2002-07-2210D-007
Title: Fine-line conductor manufacturing using drop-on demand PZT printing technology
Author(s): Szczech, J.B.; Megaridis, C.M.; Gamota, D.R.; Jie Zhang
Author Affiliation: Dept. of Mech. Eng., Illinois Univ., Chicago, IL, USA
Journal: IEEE Transactions on Electronics Packaging Manufacturing vol.25, no.1 p.26-33
Publisher: IEEE,
Publication Date: Jan. 2002 Country of Publication: USA
CODEN: ITEPFL ISSN: 1521-334X
SICI: 1521-334X(200201)25:1L.26:FLCM;1-Q
Material Identity Number: H313-2002-002
U.S. Copyright Clearance Center Code: 1521-334X/02/$17.00
Language: English
Subfile: B

17/3/6 (Item 6 from file: 2)
DIALOG(R)File 2:INSPEC

5844535 INSPEC Abstract Number: A9807-6146-016
Title: Structure of fullerene soot and carbon deposits on graphite electrode from X-ray and electron microscopy data
Author(s): Sorokin, L.M.; Ratnikov, V.V.; Mosina, G.N.; Dyuzhev, G.A.; Bogdanov, A.A.; Hutchison, J.L.
Author Affiliation: A.F. Ioffe Physicotech. Inst., Acad. of Sci., St. Petersburg, Russia
Journal: Molecular Materials Conference Title: Mol. Mater. (Switzerland) vol.7, no.1-4 p.111-14
Publisher: Gordon & Breach,
Publication Date: 1996 Country of Publication: Switzerland
CODEN: MOMAEO ISSN: 1058-7276
SICI: 1058-7276(1996)7:1/4L.111:SFSC;1-4
Material Identity Number: D322-98001
Conference Title: International Workshop IWFAC'95. Fullerenes and Atomic Clusters
Conference Date: 19-24 June 1995 Conference Location: St. Petersburg, Russia
Language: English
Subfile: A

17/3/7 (Item 1 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)

05702671 E.I. No: EIP00115410542
Title: Preparation, microscopy, and flow cytometry with excitation into surface plasmon resonance bands of gold or silver nanoparticles on aminodextran-coated polystyrene beads
Author: Siiman, Olavi; Burshteyn, Alexander
Corporate Source: Beckman Coulter, Inc, Miami, FL, USA
Source: Journal of Physical Chemistry B v 104 n 42 Oct 2000. p 9795-9810
Publication Year: 2000
CODEN: JPCBFK ISSN: 1089-5647
Language: English

17/3/8 (Item 1 from file: 94)
DIALOG(R)File 94:JICST-EPlus

05621820 JICST ACCESSION NUMBER: 03A0729174 FILE SEGMENT: JICST-E
Micro-Patterning Technology by Metal Nano - Particles
HATADA KENZO (1)
(1) Atomnics Lab. Inc., JPN
Nihon Gazo Gakkaishi(Journal of Imaging Society of Japan), 2003, VOL.42,NO.3, PAGE.238-244, FIG.10, TBL.2, REF.4
JOURNAL NUMBER: G0323ACS ISSN NO: 1344-4425
UNIVERSAL DECIMAL CLASSIFICATION: 621.382.002.2 655.3
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Commentary
MEDIA TYPE: Printed Publication

17/3/9 (Item 2 from file: 94)
DIALOG(R)File 94:JICST-EPlus

05620095 JICST ACCESSION NUMBER: 03A0640125 FILE SEGMENT: JICST-E
Fabrication of Planar Metal Nanowire Array from 1D Chains of Nanoparticles

HIRATA TAKUJI (1); SUGAWARA AKIRA (1); OUMI YASUNORI (1); SANO TSUNEJI (1); TERANISHI TOSHIHARU (1)
Jst-presto
Nippon Kagakkai Koen Yokoshu, 2003, VOL.83rd,NO.1, PAGE.512, FIG.1, REF.2
JOURNAL NUMBER: S0493AAY ISSN NO: 0285-7626
UNIVERSAL DECIMAL CLASSIFICATION: 544.72-14-16 539.23:669
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Conference Proceeding
ARTICLE TYPE: Short Communication
MEDIA TYPE: Printed Publication

17/3/10 (Item 3 from file: 94)
DIALOG(R)File 94:JICST-EPlus

05440148 JICST ACCESSION NUMBER: 03A0379451 FILE SEGMENT: JICST-E
2 printed circuit board, mounting materials. Nano Paste.
OYAMA KENSHU (1)
(1) Harima Chemicals, Inc., JPN
Denshi Zairyo(Electronic Parts and Materials), 2003, 5gatsugo bessatsu, PAGE.80-87, FIG.15, TBL.2, REF.9
JOURNAL NUMBER: F0040AAH ISSN NO: 0387-0774
UNIVERSAL DECIMAL CLASSIFICATION: 621.315.5 621.3.049.75
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Commentary
MEDIA TYPE: Printed Publication

17/3/11 (Item 1 from file: 95)
DIALOG(R)File 95:TEME-Technology & Management

01661872 20020700816
Nanotechnologie: la prochaine 'revolution' dans l'industrie textile?
(Nanotechnologie: Die naechste 'Revolution' in der Textilindustrie?)
(Nanotechnology: the next 'revolution' in textiles?)
Smith, WC
TUT Textiles a Usages Techniques, v54, n44, pp16-19, 2002
Document type: journal article Language: Not Available
Record type: Abstract
ISSN: 1161-9317

17/3/12 (Item 1 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)

02683393 SUPPLIER NUMBER: 98003736 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Minnesota team cites 'first step' toward manufacturing technique -- DNA enlisted in nanoscale memory assembly.
Johnson, R. Colin
Electronic Engineering Times, 49
Feb 24, 2003
ISSN: 0192-1541 LANGUAGE: English RECORD TYPE: Fulltext

John Sims EIC 3700 308-4836

WORD COUNT: 2581 LINE COUNT: 00213

17/3/13 (Item 2 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)

02608705 SUPPLIER NUMBER: 86648262 (USE FORMAT 7 OR 9 FOR FULL TEXT)
TR100/2002. (Mit's Magazine of Innovation: Technology Review).
Technology Review (Cambridge, Mass.), 105, 5, 65(26)
June, 2002
ISSN: 1099-274X LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 19827 LINE COUNT: 01603

17/3/14 (Item 3 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)

02461655 SUPPLIER NUMBER: 67379324 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Print Your Next PC.(Technology Information)
MIHM, STEPHEN
Technology Review (Cambridge, Mass.), 103, 6, 66
Nov, 2000
ISSN: 1099-274X LANGUAGE: English RECORD TYPE: Fulltext; Abstract
WORD COUNT: 2506 LINE COUNT: 00199

17/3/15 (Item 1 from file: 647)
DIALOG(R)File 647:CMP Computer Fulltext

01260191 CMP ACCESSION NUMBER: EET20030224S0034
Minnesota team cites 'first step' toward manufacturing technique - DNA enlisted in nanoscale memory assembly
R. Colin Johnson
ELECTRONIC ENGINEERING TIMES, 2003, n 1258, PG49
PUBLICATION DATE: 030224
JOURNAL CODE: EET LANGUAGE: English
RECORD TYPE: Fulltext
SECTION HEADING: TECHNOLOGY
WORD COUNT: 1241

27/7/9 (Item 1 from file: 94)
DIALOG(R)File 94:JICST-EPlus

02583444 JICST ACCESSION NUMBER: 95A0676632 FILE SEGMENT: JICST-E
Mask substrate **manufacturing method.**
ITO MASAYUKI (1)
(1) Toshiba Corp.
Toshiba Gijutsu Kokaishu, 1995, VOL.13,NO.51, PAGE.59, FIG.1
JOURNAL NUMBER: L0795AAY ISSN NO: 0288-2701
UNIVERSAL DECIMAL CLASSIFICATION: 621.382.002.2
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Commentary
MEDIA TYPE: Printed Publication
ABSTRACT: A problem of semiconductor mask **substrate**0 manufacturing is the poor adhesion between conductive film for main body **patterns** and **shade** film for alignment marks on the outer regions. Therefore, penetration takes place in the etching process for both patterns. To prevent the penetration, TaO film is overlaid on SnO conductive film and CrxOy/Cr outer region shade film is laminated on it. The outer region work is followed by main body film forming and alignment mark etching.

27/7/10 (Item 2 from file: 94)
DIALOG(R)File 94:JICST-EPlus

02545495 JICST ACCESSION NUMBER: 95A0396394 FILE SEGMENT: JICST-E
Phase shift mask substrate .
SHIGEMITSU FUMIAKI (1)
(1) Toshiba Corp.
Toshiba Gijutsu Kokaishu, 1995, VOL.13,NO.25, PAGE.53-54, FIG.1
JOURNAL NUMBER: L0795AAY ISSN NO: 0288-2701
UNIVERSAL DECIMAL CLASSIFICATION: 621.382.002.2
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Commentary
MEDIA TYPE: Printed Publication
ABSTRACT: It features in that the lower layer film of the device pattern formation section differs from the lower layer film of the circumference pattern in the halftone phase shift mask. For example, the lower layer film of tantalum double oxide is formed in the circumference and the lower layer film of carbon oxide silicon is formed in the halftone section. Thus mateiral that provides good contact with the upper layer film is used for each of thelower layer films of two or more different **shading pattern** formed on the mask **substrate** to increase pattern forming capacility.

27/7/11 (Item 3 from file: 94)
DIALOG(R)File 94:JICST-EPlus

01194494 JICST ACCESSION NUMBER: 91A0327617 FILE SEGMENT: JICST-E
ITO PEP-less electrodeposition color filter.
FUKUNAGA TETSUYA (1); YAMANAKA HIDEMINE (1); KOSEKI TOSHIHIKO (1); UEKI TOSHIHIRO (1)
(1) IBM Japan Ltd.

Denshi Joho Tsushin Gakkai Gijutsu Kenkyu Hokoku(IEIC Technical Report (Institute of Electronics, Information and Communication Enginners), 1991, VOL.90,NO.430(EID90 114-120), PAGE.37-41, FIG.5, TBL.3, REF.4
JOURNAL NUMBER: S0532BBG
UNIVERSAL DECIMAL CLASSIFICATION: 621.385:621.397
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication
ABSTRACT: An electrodeposited tri-color filter for use in a full color LCDs was proposed in 1983. Since this color filter was deposited on finely patterned ITO electrodes, ITO etching process was inevitable and the manufacturing yield has become a issue. To solve this problem, a new electrodeposited tri-color filter was developed. This tri-color filter was electrodeposited on the ITO electrode which was masked with **pigment** -dispersed polymer **black** matrix and a positive photoresist. The black matrix consisted of photosensitive acrylic polymer and organic **pigment** mixture because carbon **black** had low electrical resistivity. Because a Photoresist No.87 which had high photosensitivity after thermosetting was adopted, second and third electrodeposition were carried out without additional positive photoresist coating process. Therefore, the coating process which reduced process-yield was just two times. Furthermore, the new process had other merits such as high through-put because electrodeposition speed was 10sec/color. The electrodeposited tri-color filter for 10.4-in.-Diagonal 512 Color TFT-LCDs was fabricated with 25.0% luminous transmission efficiency and 57.4% NTSC gamut. (author abst.)
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John Sims EIC 3700 308-4836